Parallels H-Sphere 3.6.3 Upgrade Guide

Revision 1.0

Parallels

Legal and Copyright Notice

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CHAPTER 1

Preface

In this chapter:

Typographical Conventions

Before you start using this guide, it is important to understand the documentation conventions used in it.

The following kinds of formatting in the text identify special information.

Formatting convention	Type of Information	Example
Special Bold	Items you must select, such as menu options, command buttons, or items in a list.	Go to the **System** tab.
	Titles of chapters, sections, and subsections.	Read the **Basic Administration** chapter.
Italics	Used to emphasize the importance of a point, to introduce a term or to designate a command line placeholder, which is to be replaced with a real name or value.	The system supports the so called *wildcard character* search.
`Monospace`	The names of commands, files, directories, and domain names.	The license file is located in the `http://docs/common/licenses` directory.

`Preformatted`	On-screen computer output in your command-line sessions; source code in XML, C++, or other programming languages.	`# ls –al /files` `total 14470`
`Preformatted Bold`	What you type, contrasted with on-screen computer output.	**`# cd /root/rpms/php`**
CAPITALS	Names of keys on the keyboard.	SHIFT, CTRL, ALT
KEY+KEY	Key combinations for which the user must press and hold down one key and then press another.	CTRL+P, ALT+F4

Feedback

If you have found a mistake in this guide, or if you have suggestions or ideas on how to improve this guide, please send your feedback using the online form at http://www.parallels.com/en/support/usersdoc/. Please include in your report the guide's title, chapter and section titles, and the fragment of text in which you have found an error.

CHAPTER 2

About This Guide

This guide provides instructions on upgrading Parallels H-Sphere 3.5.1 to version 3.6.3. If you have an earlier version, you need to upgrade to 3.5.1 first.

CHAPTER 3

Preparing for Parallels H-Sphere Upgrade

Before you start upgrading Parallels H-Sphere to version 3.6.3, please obtain a license for this version, as you will need it to access the upgraded Control Panel.

As both MySQL and PostgreSQL are updated in Parallels H-Sphere 3.6.3, it is strongly recommended that you back up all databases hosted in MySQL and PostgreSQL: all user databases on database servers, Control Panel database on Control Panel server.

In a straightforward and simple approach it can be done with the following shell commands:

For FreeBSD:

```
# stop
/usr/local/etc/rc.d/apachecp.sh stop # actual only for CP server, but
no problem to run it everywhere
/usr/local/etc/rc.d/010.pgsql.sh stop
/usr/local/etc/rc.d/mysql-server stop

cp -pR /var/db/mysql /var/db/mysql-backup # you can specify other
destination directory
cp -pR /usr/local/pgsql /usr/local/pgsql-backup # you can specify
other destination directory
# start
/usr/local/etc/rc.d/mysql-server start
/usr/local/etc/rc.d/010.pgsql.sh start
/usr/local/etc/rc.d/apachecp.sh start # actual only for CP server, but
no problem to run it everywhere
```

For RedHat:

```
# stop
service httpdcp stop # actual only for CP server, but no problem to
run it everywhere
service postgresql stop
service mysql stop

cp -pR /var/lib/mysql /var/lib/mysql-backup # you can specify other
destination directory
cp -pR /var/lib/pgsql /var/lib/pgsql-backup # you can specify other
destination directory
# start
service mysql start
service postgresql start
```

service httpdcp start # actual only for CP server, but no problem to run it everywhere.

CHAPTER 4

Upgrading Parallels H-Sphere

To upgrade Parallels H-Sphere, please perform the steps provided in this chapter.

In this chapter:

Step 1. Updating Parallels H-Sphere Control Panel Core

➢ ***To update Parallels H-Sphere CP core:***

1. Download H-Sphere updater:

```
# wget
http://download.hsphere.parallels.com/shiv/HS/releases/U36.0/U36.0P2/U36.0P2
```

2. Run the installation/update script:

```
# sh ./U36.0P3
```

You will see a help window with a prompt to enter update options.

3. Update Parallels H-Sphere core (templates, classes, jars):

```
cpupdate [OPTIONS]
```

➢ ***To finalize update of Parallels H-Sphere CP core:***

1. Set PostgreSQL service automatically startable on Linux:

```
# chkconfig—levels 2345 postgresql on
```

Step 2. Starting Control Panel Apache

Parallels H-Sphere update script will automatically launch Parallels H-Sphere CP after the update. Check if Parallels H-Sphere is running, and if not, start CP Apache:

Linux:

```
# /etc/rc.d/init.d/httpdcp start
```

FreeBSD:

```
# /usr/local/etc/rc.d/apachecp.sh start
```

Step 3. installing a new License

1. Log in to the Control Panel as administrator.

   You will be prompted to enter new license activation code.

2. Enter the code.

Now you can log out from Control Panel, unless you are going to update physical boxes using it.

Step 4. Updating Physical Boxes

You have two options for updating Parallels H-Sphere packages on physical boxes:

- **Option 1**. From the Control Panel (it is the only option available for Windows boxes).
- **Option 2**. From the command line by running the installation/update script (on page 38).

After Parallels H-Sphere packages are updated, please finalize update on physical boxes carrying database servers.

In this section:

Option 1. Updating Physical Boxes from the Control Panel

➢ *To update Parallels H-Sphere on selected physical servers:*

1. Go to **E.Manager** > **Update** > **Update Boxes**.
2. Check the servers you need to update.
3. If necessary, you can get info about the box by checking boxes and clicking the **Fetch Boxes Info** button.
4. Click **Start Update**.

Update process indicator  legend:

- *Yellow*: ready for update
- *Blue:* update is running
- *Green:* update successfully finished
- *Red:* update finished with error. If update fails, you will see an error message with details.

➢ *Peculiarities of Parallels H-Sphere's work on Windows 2008 x64 and Windows 2008 R2 x64*

Please consider the following when you intend to upgrade Parallels H-Sphere on Windows 2008 x64 and Windows 2008 R2 x64 servers from versions earlier than 3.6.3:

- PHP 5.5 is built with VC11 (Visual Studio 2012 compiler) and includes improvements in performance and stability. For the VC11 builds, the Visual C++ Redistributable for Visual Studio 2012 x64 http://www.microsoft.com/en-us/download/details.aspx?id=30679 has to be installed.
- PHP 5.4 is built with VC9 (Visual Studio 2008 compiler) and includes improvements in performance and stability. For the VC9 builds, the Visual C++ Redistributable for Visual Studio 2008 SP1 x86 http://www.microsoft.com/en-us/download/details.aspx?id=5582 has to be installed.

➢ *Peculiarities of Parallels H-Sphere work on Windows 2003*

Please consider the following when you intend to upgrade Parallels H-Sphere on Windows 2003 servers from versions earlier than 3.6.3:

- PHP 5.4 is built with VC9 (Visual Studio 2008 compiler) and includes improvements in performance and stability. For the VC9 builds, the Visual C++ Redistributable for Visual Studio 2008 SP1 x86 http://www.microsoft.com/en-us/download/details.aspx?id=5582 has to be installed.

Option 2. Updating Physical Boxes from Command Line

Run the installation/update script:

```
# $ sh ./U36.0P3
```

- To update Parallels H-Sphere and Parallels SiteStudio, type:

```
update [OPTIONS]
```

- To update only Parallels H-Sphere, enter:

```
hsupdate [OPTIONS]
```

- To update only Parallels SiteStudio, enter:

```
sitestudio [OPTIONS]
```

Important: If you have a non-standard setup of Parallels H-Sphere, please refer to Appendix F. Parallels H-Sphere Update and Installation Script. You can refer to it also for details on the above mentioned options.

Finalizing update of Physical Boxes carrying Database Servers

For the Linux based physical boxes carrying PostgreSQL servers, set PostgreSQL service automatically startable:

```
# chkconfig—levels 2345 postgresql on
```

For the physical boxes carrying MySQL server, perform databases upgrade:

```
# mysql_upgrade -v -u USER -p
# mysqlcheck -o -A -a -r -u USER -v -p
```

where value to specify instead of USER, and the corresponding password - could be read from file ~mysql/.my.cnf on this physical box.

Step 5. Starting ImageMaker

Start ImageMaker if your Parallels H-Sphere is integrated with Parallels SiteStudio, for Linux and FreeBSD:

```
# /hsphere/shared/SiteStudio/imaker.sh start
```

Step 6. Checking the Version of Parallels H-Sphere

Check the version of Parallels H-Sphere by executing the following command on your CP box:

```
# cat ~cpanel/shiva/psoft_config/HS_VERSION
```

You will see a line similar to this:

HS_VERSION = <HSphere-branch>.<HSphere-build>

Where:

<HSphere-branch> is the version of Parallels H-Sphere

<HSphere-build> is the Parallels H-Sphere build

CHAPTER 5

Post-Upgrade Issues

Please contact support at http://www.parallels.com/support/hsphere/ and inform them about the upgrade. This is required to get appropriate support from Parallels. Also make sure you meet the following requirements:

1. **Customization**. If you have custom Parallels H-Sphere templates, you may probably need to update them according to changes introduced in this version. More in the section Template Customization of Parallels H-Sphere Customization Guide.
2. **Ownership**. In Parallels H-Sphere HTML pages, images, Javascript and CSS files and respective directories have `cpanel:httpdcp` ownership. Parallels H-Sphere updater checks and automatically sets correct ownership and permissions on respective default and custom files and directories. Please make sure however that newly created custom files have correct ownership and permissions (this does not relate to Parallels H-Sphere packages).
3. **VPS**: After you have updated Parallels H-Sphere, please also make sure you run Steps 3-8 of the Parallels H-Sphere VPS update instruction. For this, refer to the section Updating Parallels H-Sphere Virtual Private Servers of Adding New H-Sphere Servers and Services guide.
4. **DBD::mysql Perl driver**. If you want to update DBD::mysql driver or system Perl version, make sure to execute the script that updates DBD::mysql driver as described at http://hsphere.parallels.com/misc/socket_location_mysql_server.html.
5. **Set up Kronolith Reminders**: If you use Kronolith reminders, make sure to set them up according to http://wiki.horde.org/KronolithReminders?Horde=b80c80a948f71e51023fe0c5d75847bc&referrer=HowTo.

CHAPTER 6

Appendix A. Supported Operating Systems

Before requesting Parallels H-Sphere installation, make sure to install one of the following operating systems:

Operating System	Supported OS Version
RedHat Enterprise Linux	
	5.x (i386, x86_64)
	6.x (i386, x86_64)
CentOS	5.x (i386, x86_64)
	6.x (i386, x86_64)
CloudLinux	5.x (i386, x86_64)
	6.x (i386, x86_64)
FreeBSD	7.4 (i386, amd64)
	8.3 (i386, amd64)
	8.4 (i386, amd64)

Important:
1. We claim Parallels H-Sphere support on WhiteBox OS, assuming it is a RedHat Enterprise Linux clone. However, we do not test Parallels H-Sphere on WhiteBox servers.
2. FreeBSD: Control Panel installed on a server with 64-bit operating system requires glibc 32-bit compatibility library.
3. CloudLinux is supported as a RedHat Enterprise Linux clone. The customizations allowed by it are not propagated to UI, and should be performed manually according to instructions published on the CloudLinux site, if needed.
4. Red Hat Enterprise Linux 4.x and its clones are supported since 3.6.0 SPU 53 for migration purposes only.

CHAPTER 7

Appendix B. HDD Partitioning

Parallels H-Sphere is installed to the `/hsphere` directory.

We recommend dedicating a separate partition for the Parallels H-Sphere installation directory and mount it as `/hsphere`.

```
# mkdir -p /hsphere
# chmod 755 /hsphere
```

Parallels H-Sphere directory can be located on any other partition as well. However, we do not recommend installing Parallels H-Sphere to the root / partition. Having Parallels H-Sphere on the root partition may cause certain problems. For instance, if disk quota gets damaged, you cannot repair it without server reboot and `fsck` check in the single user mode.

If your Parallels H-Sphere installation directory is to be located on another partition, for example, `/usr/hsphere` on the `/usr` partition, the `/hsphere` symlink to this directory must be anyway created:

```
# mkdir -p /usr/hsphere
# ln -s /usr/hsphere /hsphere
# chmod 755 /usr/hsphere
```

Important: Do not create `/hsphere` as a symlink to another partition on servers with FreeBSD 5.3 and up. Allocate the separate `/hsphere` partition instead. If this is impossible, use the `nullfs` partitioning for this purpose.

There are no more requirements to partitioning the servers, just make sure there is enough disk space to store user and other Parallels H-Sphere data.

CHAPTER 8

Appendix C. Customizing Server Configuration Files by Means of Templates

You cannot customize some major service configuration files (for Web, mail, DNS, databases) **directly**, as your changes in these files will be overwritten with a consequent Parallels H- Sphere update! Instead, you need to create **configuration file templates** by means of the hsphere-update wrapper and **customize** these templates instead of default configuration files.

You can customize configuration file templates by means of Parallels H-Sphere updater, provided you have not customized your templates already. For this purpose two new options are added to the hspackages wrapper of the Parallels H-Sphere update script:

- `hspackages ctemplates=[OPTIONS]` - Place custom templates for comma-separated list of services into predefined locations if custom templates are not there already.
- `hspackages edit=IP:/path/to/custom/template` - Edit custom template on a specified server in a specified location.

Important:
If you run the hspackages ctemplates command **without options**, it will create custom templates on **all related servers** of the Parallels H-Sphere cluster! To specify **particular** servers where custom configuration templates should be created, please use the extended syntax of the hspackages command. For example, to create PHP custom configuration templates only on the physical boxes 192.168.1.10 and 192.168.1.11, run:

```
hspackages ctemplates=php ips=192.168.1.10,192.168.1.11
```

The hspackages ctemplates command should be run **only once**, in order to create custom configuration templates! Then you customize these files according to your needs. Next time you run it, it will prompt re-creating your custom configuration templates, thus you may lose your customization!
The only exclusion when you need to run `hspackages ctemplates` again is when a coming version of the hsphere-update package contains updates of default configuration templates. You will be specially notified of this in the respective update notes.

In this chapter:

Control Panel Apache

Default Control Panel Apache httpd.conf template is included into the `hsphere-update` and installed here:
`/hsphere/pkg/scripts/templates/cpapache/httpd.conf.tmpl.default`

➢ ***To customize the template:***

1. Create custom configuration template if required. Otherwise, skip this step.

   1. Download H-Sphere updater:

   ```
   # wget http://download.hsphere.parallels.com/shiv/HS/releases/U36.0/U36.0P2/U36.0P2
   ```

   2. Run the update script:

   ```
   # sh ./U36.0P3
   ```

   3. Execute the hspackages wrapper with the `ctemplates=httpdcp` option:

   ```
   hspackages ctemplates=httpdcp [OPTIONS]
   ```

Custom template will be placed into the following location:

`/hsphere/local/home/cpanel/apache/etc/httpd.conf.tmpl.custom`

1. Edit the `/hsphere/local/home/cpanel/apache/etc/httpd.conf.tmpl.custom` file according to your needs.
2. To immediately apply changes, run the conf file generating script which is as a rule executed in the `postinstall` section of the package:
   `/hsphere/shared/scripts/apache-restart`

Extra Control Panel Apache Configuration Files

Parallels H-Sphere allows to customize some extra Apache configuration files for Control Panel. They are located in the `/hsphere/local/home/cpanel/apache/conf/extra/` directory:

- `httpd-autoindex.conf` - directives controlling the display of server-generated directory listings
- `httpd-cache.conf` - directives providing HTTP content cache configuration
- `httpd-info.conf` - Apache status-related directive blocks

- `httpd-languages.conf` - directives which provide the `mod_mime` and `mod_negotiation` modules global configuration
- `vh-ssl-default.conf` - Global SSL default VirtualHost configuration

These extra configuration files are provided for easier configuration of Apache modules, such as mod_cache, mod_security, etc.

After the configuration file customization, the correspondent `*.tmpl.custom` files will be created in the same directory:

1. Create custom configuration template if required. Otherwise, skip this step.
   1. Download H-Sphere updater:

      ```
      # wget http://download.hsphere.parallels.com/shiv/HS/releases/U36.0/U36.0P2/U36.0P2
      ```

   2. Run the update script:

      ```
      # sh ./U36.0P3
      ```

   3. Execute the hspackages wrapper with the `ctemplates=httpdcp_extra` option:

      ```
      hspackages ctemplates=httpdcp_extra [OPTIONS]
      ```

      After that, custom templates `/hsphere/local/home/cpanel/apache/conf/extra/*.tmpl.custom` will be created.
2. Edit the `/hsphere/local/home/cpanel/apache/conf/extra/*.tmpl.custom` files according to your needs.
3. To immediately apply changes, restart Apache:

   ```
   /hsphere/shared/scripts/apache-restart
   ```

Apache

Default configuration Apache templates are included into the `hsphere-update` package and installed in the following locations:

```
/hsphere/pkg/scripts/templates/hs-31/apache/httpd.conf.tmpl.default
/hsphere/pkg/scripts/templates/hs-31/apache/httpd2.conf.tmpl.default
/hsphere/pkg/scripts/templates/hs-31apache/lsrv.conf.tmpl.default
```

➢ ***To customize them, perform:***

1. Create custom configuration template if required. Otherwise, skip this step.

   1. Download H-Sphere updater:

   ```
   # wget
   http://download.hsphere.parallels.com/shiv/HS/releases/U36.0/U36.0P2/U36.0P2
   ```

   2. Run the update script:

   ```
   # sh ./U36.0P3
   ```

   3. Execute the hspackages wrapper with the ctemplates=`httpd` option for Apache 1.3 and/or `ctemplates=httpd2` option for Apache 2.2:

   ```
   hspackages ctemplates=httpd [OPTIONS]
   ```

   Custom templates will be placed into the following locations:

   ```
   /hsphere/local/config/httpd/lsrv.conf.tmpl.custom
   /hsphere/local/config/httpd/httpd.conf.tmpl.custom
   /hsphere/local/config/httpd2/lsrv.conf.tmpl.custom
   /hsphere/local/config/httpd2/httpd.conf.tmpl.custom
   ```

2. Edit the `.custom` files according to your needs:

   ```
   /hsphere/local/config/httpd/lsrv.conf.tmpl.custom
   /hsphere/local/config/httpd/httpd.conf.tmpl.custom
   ```

3. To immediately apply changes, run the conf file generating script which is as a rule executed in the postinstall section of the package:

   ```
   /hsphere/shared/scripts/apache-restart
   ```

Customizing /hsphere/shared/apache/htdocs/index.html

If you need to leave `/hsphere/shared/apache/htdocs/index.html` unchanged after the update, create the following file:

```
touch /hsphere/local/config/httpd/index.html.custom
```

If the latter file exists, then you can customize your `index.html` file without the risk of its being overwritten.

Extra Apache Configuration Files

Parallels H-Sphere allows to customize some extra Apache configuration files, such as:

- `httpd-autoindex.conf` - directives controlling the display of server-generated directory listings
- `httpd-cache.conf` - directives providing HTTP content cache configuration (Apache 2.2 only)
- `httpd-gzip.conf` - directives for global settings provided by the mod_gzip module (Apache 1.3 only)
- `httpd-info.conf` - Apache status-related directives

- `httpd-languages.conf` - directives which provide the mod_mime and mod_negotiation modules global configuration
- `httpd-security.conf` - ModSecurity configuration options
- `httpd-security2.conf` - ModSecurity v.2 configuration options (Apache 2.2 only)
- `vh-ssl-default.conf` - global SSL default VirtualHost configuration

Default templates `*.tmpl.default` for these configuration files are installed with `hsphere-updater` to the following directories:

Apache 1.3: `/hsphere/pkg/scripts/templates/hs-31/apache/extra.default/`
Apache 2.2: `/hsphere/pkg/scripts/templates/hs-31/apache/extra2.default/`

After Parallels H-Sphere 3.2 update, the respective custom `.tmpl.custom` files will be created in the following directories:

Apache 1.3: `/hsphere/local/config/httpd/extra/`
Apache 2.2: `/hsphere/local/config/httpd2/extra/`

1. Create custom configuration template if required. Otherwise, skip this step.
   1. Download H-Sphere updater:

      ```
      # wget http://download.hsphere.parallels.com/shiv/HS/releases/U36.0/U36.0P2/U36.0P2
      ```

   2. Run the update script:

      ```
      # sh ./U36.0P3
      ```

   3. Execute the `hspackages` wrapper with the `ctemplates=httpd_extra` option:

      ```
      hspackages ctemplates=httpd_extra [OPTIONS]
      ```

      After that, custom templates `*.tmpl.custom` will be created in respective directories.
2. Edit the `*.tmpl.custom` files according to your needs:

   Apache 1.3: `/hsphere/local/config/httpd/extra/*.tmpl.custom`
   Apache 2.2: `/hsphere/local/config/httpd2/extra/*.tmpl.custom`
3. To immediately apply changes, restart Apache:

   ```
   /hsphere/shared/scripts/apache-restart
   ```

PHP 4

PHP 4 configuration files are located:

`/hsphere/local/config/httpd/php4/php.ini.tmpl.custom` *(when PHP4 uses fastcgi, for all Apache versions)*

`/hsphere/local/config/httpd/php4/php.ini.tmpl.custom` *(when libphp4 is used, for Apache 1.x)*

`/hsphere/local/config/httpd2/php4/php.ini.tmpl.custom` *(when libphp4 is used, for Apache 2.x)*

➢ *To customize PHP 4 configuration files:*

1. Create custom configuration template if required. Otherwise, skip this step.
   1. Download H-Sphere updater:

      ```
      # wget http://download.hsphere.parallels.com/shiv/HS/releases/U36.0/U36.0P2/U36.0P2
      ```

   2. Run the update script:

      ```
      # sh ./U36.0P3
      ```

   3. Execute the `hspackages` wrapper with the `ctemplates=php` option:

      ```
      hspackages ctemplates=php [OPTIONS]
      ```

      Custom templates will be placed into the following location:
      `/hsphere/local/config/httpd2/php4/php.ini.tmpl.custom`

      `/hsphere/local/config/httpd/php4/php.ini.tmpl.custom`
2. Edit the above mentioned `tmpl.custom` files according to your needs.
3. To immediately apply changes, restart Apache service:

   ```
   /hsphere/shared/scripts/apache-restart
   ```

PHP 5

PHP 5 configuration files are located:

`/hsphere/local/config/httpd/php5/php.ini.tmpl.custom` *(when PHP5 uses fastcgi, for all Apache versions)*

`/hsphere/local/config/httpd/php5/php.ini.tmpl.custom` *(when libphp5 is used, for Apache 1.x)*

`/hsphere/local/config/httpd2/php5/php.ini.tmpl.custom` *(when libphp5 is used, for Apache 2.x)*

➢ *To customize PHP 5 configuration files:*

1. Create custom configuration template if required. Otherwise, skip this step.
   1. Download H-Sphere updater:

```
# wget
http://download.hsphere.parallels.com/shiv/HS/releases/U36.0/U36.0P2/U36.0P2
```

2. Run the update script:

```
# sh ./U36.0P3
```

3. Execute the `hspackages` wrapper with the `ctemplates=php` option:

```
hspackages ctemplates=php [OPTIONS]
```

Custom templates will be placed into the following location:

```
/hsphere/local/config/httpd/php5/php.ini.tmpl.custom
/hsphere/local/config/httpd2/php5/php.ini.tmpl.custom
```

2. Edit the above mentioned `tmpl.custom` files according to your needs.
3. To immediately apply changes, restart Apache service:

```
/hsphere/shared/scripts/apache-restart
```

PHP 5.3

PHP 5.3 configuration files are located:

`/hsphere/local/config/httpd2/php53_ts/php.ini.tmpl.custom` (when libphp5 is used, for Apache 2.x and mpm_worker)

`/hsphere/local/config/httpd2/php53/php.ini.tmpl.custom` (in all other cases)

➢ *To customize PHP 5.3 configuration files:*

1. Create custom configuration template if required. Otherwise, skip this step.

   a. Download H-Sphere updater:

```
# wget
http://download.hsphere.parallels.com/shiv/HS/releases/U36.0/U36.0P2/U36.0P2
```

   b. Run the update script:

```
# sh ./U36.0P3
```

   c. Execute the `hspackages` wrapper with the `ctemplates=php` option:

```
hspackages ctemplates=php [OPTIONS]
```

2. Edit the above mentioned `tmpl.custom` files according to your needs.
3. To immediately apply changes, restart the Apache service:

```
/hsphere/shared/scripts/apache-restart
```

PHP 5.4

PHP 5.4 configuration files are located:

`/hsphere/local/config/httpd2/php54_ts/php.ini.tmpl.custom` (when libphp5 is used, for Apache 2.x and mpm_worker)

`/hsphere/local/config/httpd2/php54/php.ini.tmpl.custom` (in all other cases)

➢ *To customize PHP 5.4 configuration files:*

1. Create custom configuration template if required. Otherwise, skip this step.
   a. Download H-Sphere updater:
   ```
   # wget
   http://download.hsphere.parallels.com/shiv/HS/releases/U36.0/U36.0P2/U36.0P2
   ```
   b. Run the update script:
   ```
   # sh ./U36.0P3
   ```
   c. Execute the `hspackages` wrapper with the `ctemplates=php` option:
   ```
   hspackages ctemplates=php [OPTIONS]
   ```
2. Edit the above mentioned `tmpl.custom` files according to your needs.
3. To immediately apply changes, restart the Apache service:
   ```
   /hsphere/shared/scripts/apache-restart
   ```

PHP 5.5

PHP 5.5 configuration files are located:

`/hsphere/local/config/httpd2/php55_ts/php.ini.tmpl.custom` (when libphp5 is used, for Apache 2.x and mpm_worker)

`/hsphere/local/config/httpd2/php55/php.ini.tmpl.custom` (in all other cases)

➢ *To customize PHP 5.5 configuration files:*

1. Create custom configuration template if required. Otherwise, skip this step.
   a. Download H-Sphere updater:

```
# wget
http://download.hsphere.parallels.com/shiv/HS/releases/U36.0/U36.0P2/U36.0P2
```

b. Run the update script:

```
# sh ./U36.0P3
```

c. Execute the `hspackages` wrapper with the `ctemplates=php` option:

```
hspackages ctemplates=php [OPTIONS]
```

2. Edit the above mentioned `tmpl.custom` files according to your needs.
3. To immediately apply changes, restart the Apache service:

```
/hsphere/shared/scripts/apache-restart
```

Standardized PHP

Standardized PHP configuration file is located:

/hsphere/shared/php-internal/conf/php.ini.tmpl.custom

➢ ***To customize standardized PHP configuration files:***

1. Create custom configuration template if required. Otherwise, skip this step.

   a. Download H-Sphere updater:

   ```
   # wget http://download.hsphere.parallels.com/shiv/HS/releases/U36.0/U36.0P2/U36.0P2
   ```

   b. Run the update script:

   ```
   # sh ./U36.0P3
   ```

   c. Execute the `hspackages` wrapper with the `ctemplates=php` option:

   ```
   hspackages ctemplates=php [OPTIONS]
   ```

2. Edit the above mentioned `tmpl.custom` files according to your needs.
3. To immediately apply changes, restart the Apache service:

```
/hsphere/shared/scripts/apache-restart
```

FTP

FTP configuration file templates are included into the hsphere-update package and installed in the following locations:

/hsphere/pkg/scripts/templates/proftpd/shared.proftpd.conf.tmpl.default
/hsphere/pkg/scripts/templates/proftpd/local.proftpd.conf.tmpl.default

➢ ***To customize these templates, perform:***

1. Create custom configuration template if required. Otherwise, skip this step.

   1. Download H-Sphere updater:

```
# wget
http://download.hsphere.parallels.com/shiv/HS/releases/U36.0/U36.0P2/U36.0P2
```

2. Run the update script:

```
# sh ./U36.0P3
```

3. Execute the `hspackages` wrapper with the `ctemplates=ftpd` option:

```
hspackages ctemplates=ftpd [OPTIONS]
```

Custom templates will be placed into the following locations:

```
/hsphere/local/config/ftpd/proftpd.conf.tmpl.custom
/hsphere/shared/config/ftpd/proftpd.conf.tmpl.custom
```

2. Edit the `.custom` files according to your needs:

```
/hsphere/local/config/ftpd/proftpd.conf.tmpl.custom
/hsphere/shared/config/ftpd/proftpd.conf.tmpl.custom
```

3. To immediately apply changes, run:

```
/hsphere/shared/config/ftpd/configure-proftpd.sh
```

4. Restart FTP service.

MySQL

MySQL configuration file templates are included into the hsphere-update package and installed in the following locations:

Linux: `/hsphere/pkg/scripts/templates/FreeBSD/my.cnf_tmpl.default`
FreeBSD: `/hsphere/pkg/scripts/templates/Linux/my.cnf_tmpl.default`

➢ ***To customize these templates, perform:***

1. Create custom configuration template if required. Otherwise, skip this step.
   1. Download H-Sphere updater:

```
# wget
http://download.hsphere.parallels.com/shiv/HS/releases/U36.0/U36.0P2/U36.0P2
```

   2. Run the update script:

```
# sh ./U36.0P3
```

   3. Execute the `hspackages` wrapper with the `ctemplates=mysql` option:

```
hspackages ctemplates=mysql [OPTIONS]
```

      Custom templates will be placed into the following location:

      `/hsphere/local/config/mysql/my.cnf_tmpl.custom`

2. Edit the `/hsphere/local/config/mysql/my.cnf_tmpl.custom` file according to your needs.
3. To immediately apply changes, run the conf file generating script which is as a rule executed in the package postinstall section:

```
/hsphere/local/config/mysql/scripts/config_mysql
```

PostgreSQL

PostgreSQL configuration file templates are included into the hsphere-update package and installed in the following locations:

Linux:
`/hsphere/pkg/scripts/templates/FreeBSD/postgresql.conf_tmpl.default`
FreeBSD:
`/hsphere/pkg/scripts/templates/Linux/postgresql.conf_tmpl.default`

➢ ***To customize these templates, perform:***

1. Create custom configuration template if required. Otherwise, skip this step.

   1. Download H-Sphere updater:

   ```
   # wget http://download.hsphere.parallels.com/shiv/HS/releases/U36.0/U36.0P2/U36.0P2
   ```

   2. Run the update script:

   ```
   # sh ./U36.0P3
   ```

   3. Execute the `hspackages` wrapper with the `ctemplates=pgsql` option:

   ```
   hspackages ctemplates=pgsql [OPTIONS]
   ```

   Custom templates will be placed into the following location:

   `/hsphere/local/config/pgsql/postgresql.conf_tmpl.custom`

2. Edit the `/hsphere/local/config/pgsql/postgresql.conf_tmpl.custom` file according to your needs.

Important: By default, PostgreSQL listens on localhost (parameter virtual_host=127.0.0.1 in configuration file). Change this parameter if required.

3. To immediately apply changes, run the conf file generating script which is as a rule executed in the package postinstall section:

```
/hsphere/local/config/pgsql/scripts/config_pgsql
```

DNS

/etc/named.conf

Default template is located at `/hsphere/pkg/scripts/templates/named/named.conf.tmpl.default`

1. Create custom configuration template if required. Otherwise, skip this step.

   1. Download H-Sphere updater:

   ```
   # wget http://download.hsphere.parallels.com/shiv/HS/releases/U36.0/U36.0P2/U36.0P2
   ```

   2. Run the update script:

   ```
   # sh ./U36.0P3
   ```

   3. Execute the `hspackages` wrapper with the `ctemplates=named` option:

   ```
   hspackages ctemplates=named [OPTIONS]
   ```

   Custom template will be placed into the following location:

   /etc/named.conf.tmpl.custom

2. Edit the `/etc/named.conf.tmpl.custom` file according to your needs.
3. To immediately apply changes, run the configuration file generating script which is as a rule executed in the postinstall section of the package:

```
/hsphere/local/config/bind/scripts/config_bind
```

/etc/resolv.conf

To leave `/etc/resolv.conf` unchanged during the update (e.g., when MyDNS is used), perform:

```
touch /etc/resolv.conf.custom
```

If the latter file exists, then you can customize your `/etc/resolv.conf` file without the risk of its being overwritten.

Other Files Included into Parallels H-Sphere Packages

Warning: It is not recommended that you customize the files included into Parallels H-Sphere packages by yourself. Any alterations made to them are at your own risk!

Besides customization of some major service configuration files (for Web, mail, DNS, databases, etc.), we have implemented for your convenience a possibility to customize other files included into Parallels H-Sphere packages. For this, we have created a configuration file `/hsphere/local/config/customs/customs.conf` and a special template `/hsphere/local/config/customs/customs.conf.tmpl` that will help you to save customized Parallels H-Sphere packages files during future updates.

➢ *To customize a file included into Parallels H-Sphere Package and save the changes:*

1. Make necessary changes to the file you want to customize.
2. Copy a template of custom files to a configuration file:

```
cp -p /hsphere/local/config/customs/customs.conf.tmpl
/hsphere/local/config/customs/customs.conf
```

3. Go to the `customs.conf` file
4. Add the full path to the customized file(-s) under the mask of the relevant package, e.g.:

```
[hsphere-imap-h2.5]
/etc/rc.d/init.d/courier-imapd
/etc/rc.d/init.d/courier-imapd-ssl
/hsphere/local/config/mail/imap/etc/imapd
/hsphere/local/config/mail/imap/etc/imapd-ssl
```

Please note that during the package updates all custom files will be saved in the `/hsphere/local/config/customs/$package_mask/` directory. The default files of Parallels H-Sphere packages, in their turn, will be stored at `/hsphere/local/config/customs/default/$package_mask/`. The above mentioned locations store the latest versions of both custom and default files, no matter custom or default file is being used.

CHAPTER 9

Appendix D. Download Locations

This table contains codes for all Linux/FreeBSD operating systems supported by Parallels H-Sphere and links to the directories on the http://download.hsphere.parallels.com website where you can download packages required by Parallels H-Sphere.

Operating System	OSCODE	Download Location
RedHat EL 4, CentOS 4.x, White Box EL 4.x	RHES4	http://download.hsphere.parallels.com/shiv/HS/RHES4
RedHat EL 4, CentOS 4.x, White Box EL 4.x (x86_64)	RHES4_64	http://download.hsphere.parallels.com/shiv/HS/RHES4_64
RedHat EL 5, CentOS 5.x, CloudLinux 5.5	RHES5	http://download.hsphere.parallels.com/shiv/HS/RHES5
RedHat EL 5, CentOS 5.x (x86_64)	RHES5_64	http://download.hsphere.parallels.com/shiv/HS/RHES5_64
RedHat EL 6, CentOS 6.x	RHES6	http://download.hsphere.parallels.com/shiv/HS/RHES6
RedHat EL 6, CentOS 6.x (x86_64)	RHES6_64	http://download.hsphere.parallels.com/shiv/HS/RHES6_64
FreeBSD 7.3	FBSD73	http://download.hsphere.parallels.com/shiv/HS/FBSD73
FreeBSD 7.3 (amd64)	FBSD73_64	http://download.hsphere.parallels.com/shiv/HS/FBSD73_64
FreeBSD 7.4	FBSD74	http://download.hsphere.parallels.com/shiv/HS/FBSD74
FreeBSD 7.4 (amd64)	FBSD74_64	http://download.hsphere.parallels.com/shiv/HS/FBSD74_64

In this chapter:

Mirror Server for Updating Parallels H-Sphere

If you have 2 and more boxes with the same operating system and you want to speed up package downloads, you can create a mirror server and in the updater set an alternative URL for package downloads.

➢ ***To create a mirror:***

1. Set up a web server (or just an IP-based virtual host in existing web server).
2. In the web server's (or appropriate virtual host's) document root directory, create directory `shiv/HS/releases/U36.0P3/`, e.g.

```
mkdir -p /var/www/html/shiv/HS/releases/U36.0P3/
```

3. Download all contents of http://download.hsphere.parallels.com/shiv/HS/releases/U36.0/ into your `shiv/HS/releases/U36.0P3/` directory.
4. Download the script http://download.hsphere.parallels.com/shiv/HS/releases/sync360fromPublic.sh, adjust it for your paths, and run:

```
sh sync360fromPublic.sh
```

5. This will download you H-Sphere packages according to the package lists in `shiv/HS/releases/U36.0P3/`.

Appendix E. Creating Update Profiles for Physical Servers

Now you can specify this mirror server to be used by the Parallels H-Sphere install/update script by setting the `mirror` parameter.

Physical server profiles are sets of rules for updating/installing physical boxes. By default, Parallels H-Sphere includes the 'DEFAULT' profile which can't be removed or changed. If not set otherwise, the box is updated according to this DEFAULT profile.

You can create your own update profiles from the Parallels H-Sphere administrator interface and assign them to specific boxes. In this case, the system will update the server according to the profile it's assigned to.

➢ *To create a profile:*

1. Go to **E.Manager** > **Update** > **Physical server profiles.**
2. Choose the box (Unix/Windows) and click the **Add** button.
3. Name and configure your profile in the form that appears:
   - Adding Unix profile: with some of the parameters refer to the section on hsphere-update Package (on page 37).
   - Adding Windows profile check if needed the following options:
     - **Update only pointed logical server groups**. You can choose between three hosting modes: Windows hosting only, MsSQL hosting only, or both Windows and MsSQL hosting modes
     - **Source URL for packages download redefinition** is the link to an alternative server with MSI packages. If not set, default MSI location is http://download.hsphere.parallels.com/shiv/HS/WINDOWS/.
     - **Location of user home directory**. If it is not set there, H-Sphere Winbox installer will automatically create it on NTFS partition with the largest free space.
     - **MAC address of network interface to host dedicated IP's, etc**. If not set there, H-Sphere Winbox installer will automatically choose an address based on the free IPs of a physical server.
     - **Name of MSSQL server instance**. Give a name to a MsSQL server instance if you want it to differ from a default one generated from a NetBIOS name of a specific server.
4. Click **Save** to apply. The newly-created profile will appear in the list of existing profiles.
5. Click the **Assign Profiles to Physical Servers** link to assign the profile to a server.

Note: You can assign only one profile to a server. But one and the same profile can be assigned by several servers.

6. Check a physical box and click **Apply**.

➢ *To reassign a profile:*

1. Go to **E.Manager** > **Servers** > **P. Servers**.
2. Click the physical server name you want to reassign a profile to.
3. Click the **Edit** icon in the **Physical Server Profile** field.

4. Reassign the profile.

From now on, every time you update this physical box from CP interface, it will update according to the profile.

In this section:

hsphere-update Package Reference

The `hsphere-update` package is installed during Parallels H-Sphere installation on each physical box. When updating Parallels H-Sphere, it runs the `upackages` script on the CP box to update Parallels H-Sphere packages on each box to their latest version.

upackages Syntax

upackages [-h] [-i] [-f] [-s] [-v version] [-V] [-e show|add:pattern,...|del:pattern,...|del:all] [-p] [-w] [-m] [-j] [-P] [-r] [-u] [-P] [-n] [-M] [-S] [-R] [-N] [-I] [-o]

Where:

- **h** - help information.
  -i - ignore md5 sum of the downloaded packages, only warning.
  -f - force mode, update packages by force, when md5 sum of the installed hsphere package differs from downloaded package.
  -s - update only packages change, which takes place in the hsphere subversion according to corresponding version.
  -v version, format U[version]/U[subversion]. If not specified, `/hsphere/shared/etc/hsversion` file is checked.
  -V - verbose mode
  -e - [show|add:pattern1,pattern2,...|del:pattern1,pattern2,...|del:all] - show, set or delete the list of the package patterns, which must be skipped during update on all or specific list of HS boxes.

Note: Use this carefully, as HS packages are connected with HS version. This may be used if you have customized version of the specific HS package or if you update system packages, like MySQL server, via native OS package manager, etc.

- **p** - PostgreSQL update (for new HS box this is done by default)
  -w - Site Studio update
  -m - MyDNS service is used instead of Bind 9.3.x, Update of the bind will be skipped.
  -j - required during IP migration
  -r - package update strictly according to package list (by default update of packages with higher version skipped)
  -t [php,httpd,ftpd,mysql,pgsql,cphttpd,named] - place custom templates in the required location for further editing
  -P - update to the latest SPU release.
  -u - Source URL for packages download redefinition.
  -n - Skip restart of postgres and httpdcp at the end of update.
  -M - update modes (`presingle`, `hspresingle`, `postsingle`, `hspostsingle`, `cpinstall`, `hsupdate`, `postgres`, `sitestudio`, `sitebuilder`, `update`, `ipmigration`, `deploy`):
  - `presingle` - single server package mode
  - `hspresingle` - ‘presingle’ mode, except sitestudio installation
  - `postsingle` - single server deploy mode

- `hspostsingle` - ‘postsingle’ mode, except sitestudio postconf
- `cpinstall` - control panel preinstall procedure
- `update` - full update (all packages update)
- `hsupdate` - ‘update’ mode, except sitestudio update
- `postgres` - PostgreSQL update
- `sitestudio` - Parallels SiteStuidio update
- `sitebuilder` - Parallels Presence Builder update (version 3.3+)
- `ipmigration` - reconfiguring IP dependent information
- `deploy` - deploy mode (general box post-reconfiguration)

- **S** - slave installation/update mode - provides installation/update of web or mail slave box.
  -R mask1[,mask2,...] - revert mode, provides downgrade of a set of packages with mask1[,mask2,...]
  -N - this option allows to force install/update for the deprecated OS/soft listed in http://hsphere.parallels.com/eol.html if possible.
  -I - this option allows to get exclude package list from stdin (used in HS 3.1 for different update profile configuration in CP interface). Retrieved package list is merged with pre-configured exclude package list.
  -o - skips pre-configured exclude package list during update.

For instance, to install packages for Parallels H-Sphere 3.2 Patch 1 with md5 sum of the downloaded files ignored run:

Appendix F. Parallels H-Sphere Update and Installation Script

upackages -i -v U32.0/U32.0P1

Parallels H-Sphere administrator runs the same updater for Parallels H-Sphere installation and update. Moreover, the updater is used to update (and even downgrade) system packages and configuration file templates. Updater is executed from the corresponding Parallels H-Sphere update version.

Parallels H-Sphere updater's main features:

- Implemented backward compatibility, particularly for **postgres, sitestudio, ipmigration** keys.
- Using set of Parallels H-Sphere self-configured packages, which take IP dependent information from the `config.xml` file with the help of the hsinfo utility.
- MD5 sum check before/after package download.
- Update of Parallels H-Sphere packages to the last set of available packages, allowed by specific Parallels H-Sphere version/subversion.
- Global check of the installed software after update for each box.
- Possibility to add additional service/server after configuring them via CP interface.
- Check of the required disk space for installation/update.
- Updater can be executed either in the **interactive** (wrapper) or in the **non-interactive** (update scipt's command line interface) modes.
- Update is provided for all *nix physical servers in Parallels H-Sphere cluster, including VPS servers.

Parallels H-Sphere Updater consist of two parts:

- Wrapper which checks and installs, if needed, the hsphere-update package on each box.
- Set of update scripts installed as the hsphere-update package.

Interactive Mode: Command Line Interface of the Wrapper

Parallels H-Sphere updater's interactive mode assumes that you first launch Parallels H-Sphere update script, like this:

```
# sh <updater_filename>
```

And then type in one of the prompted options with or without parameter in the command line of the form that appears.
See Parallels H-Sphere updater options.

Non-Interactive Mode: Update Script's Command Line Interface

Parallels H-Sphere update script can run in non-interactive mode, i.e., without the need to enter the wrapper and type in the options there. Run the update script with the wrapper's options, like this:

```
# sh <updater_filename> install cpinstall
```

or:

```
# sh <updater_filename> update hspackages ips=IP1,IP2
```

In this section:

Update Modes and Options

Parallels H-Sphere updater/installer is downloaded from Parallels H-Sphere download page located at http://www.parallels.com/download/hsphere/ (to access the page, you will have to provide details of your Parallels account).

Run the script with a corresponding option. If you run:

```
# sh <updater_filename>
```

the script will choose to update or install, according to what is available on the server:

- CP Unix user cpanel
- the `hsphere.properties` file
- consistent Parallels H-Sphere system PostgreSQL database
- Parallels H-Sphere related software (if user ran updater mistakenly on a non-CP box)

Important: It is highly recommended that you run the script with a specified update or installation mode.

To update Parallels H-Sphere, run the script in the update mode:

```
# sh <updater_filename> update
```

You will get the list of update modes, each having its own options:

(1) `hsupdate` – update Parallels H-Sphere cluster, except Parallels SiteStudio.

(2) `update` - update Parallels H-Sphere cluster including Parallels SiteStudio.

(3) `sitestudio` - update Parallels SiteStudio on the Control Panel box.

(4) `cpupdate` - update Parallels H-Sphere core and related packages only.

(5) `deploy` - Parallels H-Sphere cluster post-update configuration.

(6) `hspackages` - Parallels H-Sphere cluster update in custom mode; additional update options (forming custom configuration files, maintaining exclude package lists, skipping CP update, etc.)

(7) `3rdpackages` - install missing files for Parallels H-Sphere .hsp packages on physical boxes.

(8) `revert`—downgrade packages to previous versions.

`(9) sitebuilder` - update Parallels Presence Builder on the control panel server (for Parallels H-Sphere 3.3 and up).

If you want more information on each mode, simply type its number in the command line.

Update Modes:

- **hsupdate** - common Parallels H-Sphere update, excluding system postgres and Parallels SiteStudio.

  Options:

```
hsupdate [ help ] [ ips=IP1,IP2,.. ] [
group=lgroup1,lgroup2,... ] [ spu ] [ strict ] [ nomd5 ] [
force ] [ skip=stage ] [ url=Link ] [ mirror=mirror_number ]
```

- **update** - Parallels H-Sphere update, including system postgres and Parallels SiteStudio.

  Options:

```
update [ help ] [ ips=IP1,IP2,.. ] [
group=lgroup1,lgroup2,... ] [ spu ] [ strict ] [ nomd5 ] [
force ] [ skip=stage ] [ url=Link ] [ mirror=mirror_number ]
```

- **sitestudio** - Parallels SiteStudio update.

  Options:

```
sitestudio [ help ] [ ips=IP1,IP2,.. ] [
group=lgroup1,lgroup2,... ] [ url=Link ] [
mirror=mirror_number ]
```

- **sitebuilder** - Parallels Presence Builder update (for Parallels H-Sphere 3.3 and up).

  Options:

```
sitebuilder [ help ] [ ips=IP1,IP2,.. ] [
group=lgroup1,lgroup2,... ] [ url=Link ] [
mirror=mirror_number ]
```

- **cpupdate** - update only Control Panel packages, templates, jars, etc.

  Options:

```
cpupdate [ help ] [ ips=IP1,IP2,.. ] [
group=lgroup1,lgroup2,... ] [ url=Link ] [
mirror=mirror_number ]
```

  deploy - the so-called “deploy” mode is run after all the system packages are installed/updated. In the deploy mode Parallels H-Sphere updater downloads and installs post-configuration scripts that perform general Parallels H-Sphere post-install/post-update configuration.

  Options:

```
deploy [ help ] [ ips=IP1,IP2,.. ] [
group=lgroup1,lgroup2,... ] [ spu ] [ strict ] [ nomd5 ] [
force ] [ skip=stage ] [ url=Link ] [ mirror=mirror_number ]
```

- **hspackages** - advanced mode to update Parallels H-Sphere related packages across Parallels H-Sphere cluster.

  Options:

```
hspackages [ help ] [ ips=IP1,IP2,.. ] [
group=lgroup1,lgroup2,... ]
[ spu ] [ strict ] [ nomd5 ] [ force ] [ skip=stage ]
[ reconfig=front-end|spamassassin|all ]
[ mode=modename ] [ oscode ] [ mirror=mirror number ]
exclude-mysql=show|add|del | exclude-postgresql=show|add|del
| exclude-dns=show|add|del ]
[ sitestudio ] [ sitebuilder ] [ postgres ] [ url=Link ] [
verbose ]
[ ctemplates=php,httpd,ftpd,mysql,pgsql,httpdcp,named ]
[ edit=IP:/path/to/custom/template ] [ skip-exclude ]
[ old-platform ]
```

- **3rdpackages** - install missing files for Parallels H-Sphere ‘hsp’ packages on physical boxes.

  ```
  3rdpackages [ help ]
  ```

  This is a long term operation. To examine the output of the script use tail -f logfile command.
- **revert** - downgrade packages to previous versions.

  Options:

  ```
  revert pkgs=[ list | package_name,package_name2,.. ] [ help ]
  ```

Options’ Description:

- **ips** - only specific list of the target boxes from HS cluster may be pointed instead of provide check update for all IPs in HS cluster;
- **group** - the list of logical server groups, separated by comma. Possible groups: mail, web, dns, mysql, pgsql, cp, vps (using common ips and group tags is allowed).
- **spu** - update to the latest SPU release.
- **strict** - form package list based exclusively on package list. By default, downgrade to older package version is skipped.
- **nomd5** - update is not critical for wrong md5 sum, only warning;
- **force** - check md5 sum of the installed packages with the same version too, if wrong md5 sum, install new package by force;
- **skip=[check|preparing]**
- **check** - skip check-up and regeneration of the existing updater.
- **preparing** - skip config.xml regeneration on boxes during update.
- **reconfig=front-end|spamassassin|all** - this option is used in the case of front-end (Horde, PhpMyAdmin, PhpPgAdmin) or SpamAssassin database location redefinition. It provides the list of boxes allocation where update and/or related reconfiguration is required.
- **mode=[hsupdate|update|ipmigration|deploy]** - set update mode with one of the options:
- **hsupdate** - common update without postgres and sitestudio;
- **update** - hsupdate including postgres and sitestudio;
- **ipmigration** - reconfiguring IP dependent information;
- **deploy** - deploy mode (post-install general box reconfiguration).
- **oscode** - shows OS code of each box during update preparation.
- **mirror** - allow to set another mirror instead of the default one. At this moment available are the following Parallels H-Sphere servers:

  ```
  0 download.hsphere.parallels.com (USA) default
  1 download2.hsphere.parallels.com (Europe)
  ```

- **exclude-mysql=show|add|del | exclude-postgresql=show|add|del | exclude-dns=show|add|del** - you can configure Parallels H-Sphere to use custom PostgreSQL/MySQL versions instead of installing their default versions (read more in the section Configuring H-Sphere to Use Non-Default MySQL/PostgreSQL Versions of Parallels H-Sphere System Administrator Guide). In this case HS updater allows excluding related package from the Parallels H-Sphere update leaving the possibility to update them via native system package managers. Example:

  ```
  hspackages exclude-mysql=add ips=192.168.1.10
  ```

  `the exclude-dns=` option allows to exclude standard Bind server in order to use MyDNS server or other custom DNS servers (like djbdns, http://cr.yp.to/djbdns.html) instead. More in the section MyDNS Installation and Configuration of Parallels H-Sphere System Administrator Guide.
- **skip-exclude** - skip pre-configured exclude package list during current update. Skip pre-defined exclude list that was previously set via exclude
- **sitestudio** - update Parallels SiteStudio to the last supported version.
- **sitebuilder** - update Parallels Presence Builder to the last supported version (Parallels H-Sphere 3.3+).
- **postgres** - update postgressql to the last supported version.
- **url=Link** - alternative path for package download (instead of http://download.hsphere.parallels.com/shiv/HS);
- **verbose** - inform whether package was installed by force or with nodeps;
- **ctemplates=php,httpd,httpd2,cphttpd,httpd_extra,httpd2_extra,cphttpd_extra, ftpd,mysql,pgsql,named** - Place custom configuration file templates for comma-separated list of services into predefined locations if custom templates are not there already.

  the `httpd_extra`, `httpd2_extra`, and `cphttpd_extra` options are used to customize some extra configuration files respectively for Web server's Apache 1.x and 2.x and for CP Apache. Also the httpd2 option is introduced for Apache 2.2.
- **edit=IP:/path/to/custom/template** - edit custom configuration file template on a specified server in a specified location.
- **old-platform** - this option allows to force install/update for the deprecated OS/soft listed in http://hsphere.parallels.com/eol.htmll.
- **subversion** - there is global hsphere package list and its subversion differences.
- **help2** - get additional possibilities description. This key allow to check only subversion check to speed up update (of course, update to corresponding hsphere version is required before);
- **slaves=web|mail|all** - choose this option to install/update packages on slave servers of load balanced Web/mail clusters. More in the section Installation of Load Balanced Web/Mail Clusters of Parallels H-Sphere System Administrator Guide.
- **help2** - get description of additional possibilities description. This key allow to check only subversion check to speed up update (of course, update to corresponding hsphere version is required before);

pkgs=[list | package_name1,package_name2,..] - revert (downgrade) packages separated by comma. For example: `revert=hsphere-webmails,mysql,hsphere-mnogosearch`
Using pkgs=list will display the list of all packages you can downgrade. Choose from the list.

Selective Update of Parallels H-Sphere *nix Packages

If you have customized versions of Parallels H-Sphere *nix packages or other system packages that you update via native OS package manager, you need to exclude them from being updated by the script. Parallels H-Sphere update in this case should be run as follows:

1. Update Parallels H-Sphere core (templates, classes, jars):

```
cpupdate [OPTIONS]
```

2. To exclude the packages, type:

```
hspackages [ ips=<IP1>,<IP2>,...<IPN>]
exclude=add:<pattern1>,<pattern2>,...<patternN> skip=preparing
```

Here, ***<IPx>*** are physical server IPs, and ***<patternx>*** are packages to exclude. For detailed syntax see command line interface of the Parallels H-Sphere Updater wrapper.

To make sure you have successfully excluded the packages, run:

```
hspackages [ ips=<IP1>,<IP2>,...<IPN>] exclude=show
skip=preparing
```

Warning: Please be very careful in excluding the packages from the update list! You must have serious reasons to do this!

3. Update Parallels H-Sphere related packages:

```
hspackages
```

Note: If you update Parallels H-Sphere packages from the interface, you can exclude the above mentioned packages from the update by checking the `Exclude package list` option in the physical server profile (on page 34).

Updating Parallels H-Sphere with Default Configuration Files Not Customized By Means of File Templates

1. Update Parallels H-Sphere core (templates, classes, jars):

```
cpupdate [OPTIONS]
```

2. To create default configuration file templates, type:

```
hspackages ctemplates=php,httpd,ftpd,mysql,pgsql
```

For syntax and details please read about customizing configuration files by means of templates (on page 17).

Important: This command will create default configuration file templates in respective directories. After that, you should customize them according to the custom configuration you had before. Typical reasons for such customization may be the use of Zend Optimizer, ChiliASP, ColdFusion Apache modules, etc.

3. Update Parallels H-Sphere related packages:

```
hspackages
```